

Remarks

Reconsideration and allowance of the present patent application based on the foregoing amendments and following remarks are respectfully requested.

In the pending Office Action, the Examiner rejected claims 1, 4, 6 and 7, under 35 U.S.C. §103(a), as allegedly being unpatentable over Endo '113 in view of Abe '920 and further in view of Ooide '742.

By this Amendment, independent claims 1 and 4 have been amended for form and clarity. New claim 8 has been added. No new matter has been introduced. Therefore, claims 1 and 4-8 are currently presented for examination, of which claims 1 and 4 are independent. Support for the instant amendments is provided throughout the Specification.

Applicant traverses the §103(a) rejection for the following reasons:

I. REJECTIONS UNDER 35 U.S.C. §103(a)

As noted above, independent claims 1 and 4 now positively recite, *inter alia*, that the spherical body has ***only two holes, a first hole and a second hole that are positioned at right-left symmetrical positions in an upper half section of an outer surface of the spherical body, a through-hole having a substantial V-shape and being formed by the first hole and second hole being respectively drilled toward a center of the spherical body, the substantial V-shape of the through-hole defining a vertex section that projects downward and is formed proximate to the center of the spherical body, and a curved surface that is formed by cutting off a portion of the downwardly projecting vertex section.***

These features are amply supported and described by the embodiments disclosed throughout the written description. (See, Specification: page 6, line 16-page 10, line 9; FIG. 2).

Applicant submits that none of the asserted references, whether taken alone or in combination, suggest each and every element of claim 1 including, for example, the claim features noted above. In particular, primary reference, Endo '113, specifically teaches the use of three holes in which holes 2 are insertion holes and hole 3 is an extraction hole. The

reference also specifically teaches that a Y-shape path (i.e., through-hole) is required to ensure that a gentle corner is formed. (See, Endo '113: pages 3-4; FIG. 2).

In so doing, Endo '113 directly contravenes the configuration of claims 1 and 4, which require only two holes, a first hole and a second hole that are positioned at right-left symmetrical positions in an upper half section of an outer surface of the spherical body. Endo '113 also contravenes the requirement that the through-hole have a substantial V-shape and being formed by the first hole and second hole being respectively drilled toward a center of the spherical body.

Equally notable, there is simply nothing in Endo '113 that remotely suggests or contemplates a curved surface that is formed by cutting off a portion of the downwardly projecting vertex section, as also required by claims 1 and 4.

Applicant submits that the remaining references are equally deficient. For example, even though Abe '920 does disclose only two holes, the holes are specifically positioned on the diameter of the spherical body – not at the right-left symmetrical positions in an upper half section of an outer surface of the spherical body, as required by the configuration of claims 1 and 4. (See, Abe '920: FIGs. 1-3).

Moreover, the through-hole of Abe '920 is clearly linear – not a substantial V-shape being formed by the first hole and second hole being respectively drilled toward a center of the spherical body, as also required by claims 1 and 4.

Equally notable, Abe '920 remains silent as to a curved surface that is formed by cutting off a portion of the downwardly projecting vertex section, as further required by claims 1 and 4.

With regard to Ooide '742, this reference teaches two-holed spherical bodies and three-holed spherical bodies. For the two-holed spherical bodies, like Abe '920, Ooide '742 merely discloses that the two holes are specifically positioned on the diameter of the spherical body – not at the right-left symmetrical positions in an upper half section of an outer surface of the spherical body. And, also like Abe '920, the through-hole of Ooide '742 is clearly linear – not a substantial V-shape being formed by the first hole and second hole being respectively drilled toward a center of the spherical body.

For the three-holed spherical bodies, Ooide '742, like Endo '113, directly contravenes the requirement of having only two holes, a first hole and a second hole that are positioned at right-left symmetrical positions in an upper half section of an outer surface of the spherical body. And, like Endo '113, Ooide '742 also teaches the use of a Y-shape path, which contravenes the requirement that the through-hole have a substantial V-shape and being formed by the first hole and second hole being respectively drilled toward a center of the spherical body.

Moreover, just like all the other references, there is not a hint in Ooide '742 regarding a curved surface that is formed by cutting off a portion of the downwardly projecting vertex section.

Applicant, therefore, points out that given the numerous deficiencies identified above, even the combined teachings of the asserted references, still fail to come close - much less achieve or render obvious - the configuration of claims 1 and 4.

Thus, for at least these reasons, Applicant submits that these asserted references are incapable of rendering claims 1 and 4 obvious. As such claims 1 and 4 are clearly patentable and because claims 6 and 7 depends from claims 1 and 4, respectively, claims 6 and 7 are patentable at least by virtue of dependency as well as for their additional recitations.

Moreover, because new independent claim 8 recites similar patentable features as claims 1 and 4, claim 8 is patentable for at least similar reasons as claims 1 and 4.

Accordingly, the immediate withdrawal of the §103(a) rejection is respectfully requested.

Conclusion

Having addressed each of the foregoing rejections, it is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, the application is in condition for allowance. Notice to that effect is respectfully requested.

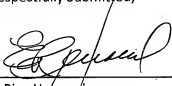
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

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Respectfully Submitted,

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